

03 Jun 02

DEPARTMENT OF THE AIR FORCE  
Air and Space Basic Course (AETC)  
Maxwell Air Force Base, Alabama 36112

LESSON PLAN

**A1360, PRECISION ENGAGEMENT**

CONTENTS

<u>TITLE</u>	<u>PAGE</u>
Record of Changes	
Educational Goals .....	A1360-G-1 thru G-2
Instructional Plan .....	A1360-P-1 thru P-11

**RECORD OF CHANGES**

CHANGE NUMBER	REMARKS
New Lesson Plan	Supercedes ABC lesson A1360 dated 27 Aug 01

**SUMMARY OF CHANGES**



## **EDUCATIONAL GOALS**

A1000 Area Objective: Apply aerospace power capabilities and officership principles to warfighting.

A1300 Phase Objective: Comprehend how the Air Force Core Competencies enhance warfighting.

### **A1360 – PRECISION ENGAGEMENT**

**Lesson Objective 1:** Know the historical development of the USAF Core Competency of Precision Engagement.

#### **Samples of Behavior:**

(R/S) 1.1 - Identify historical examples of Precision Engagement.

(R/S) 1.2 - Define the USAF Core Competency of Precision Engagement.

**Lesson Objective 2:** Comprehend the significance of selected historical events in the development of the USAF Core Competency of Precision Engagement.

#### **Samples of Behavior:**

(R/S) 2.1 - Explain the importance of the 6004<sup>th</sup> Air Intelligence Services Squadron during the Korean War in the development of the USAF Core Competency of Precision Engagement.

(R/S) 2.2 - Explain the importance of the Laser-Guided Bombing of the Thanh Hoa Bridge during the Vietnam War in the development of the USAF Core Competency of Precision Engagement.

**Lesson Objective 3:** Comprehend how the USAF Core Competency of Precision Engagement contributes to aerospace operations.

#### **Sample of Behavior:**

(R/S) 3.1 - Explain the role of the USAF Core Competency of Precision Engagement in the application of aerospace power.

**Lesson Description:** In this lesson, students discuss the importance of Precision Engagement as one of the six Air Force Core Competencies. Students also discuss Precision Engagement from two historical perspectives: the 6004<sup>th</sup> Air Intelligence Services Squadron during the Korean War and the Laser-Guided Bombing of the Thanh Hoa Bridge during the Vietnam War. This lesson explores the impact of Precision Engagement on aerospace operations and how this Core Competency relates to the Airman's perspective of military operations.

**Prerequisites:** None

**Preparation:** Read A1360, Precision Engagement.  
Read AFDD 1, pp. 31-32.

**Optional:** N/A

**Rationale/Linkage:** The A1300 Phase of instruction focuses on the Air Force Core Competencies. According to AFDD 1, "Core competencies are at the heart of the Air Force's strategic perspective and thereby at the heart of the Service's contribution to our nation's total military capabilities. . . whether as a single Service or in conjunction with the core competencies of other Services in joint operations" (27). Students must understand the Air Force Core Competencies before a study of Joint Air Operations Planning (A1600 Phase) can commence. This particular lesson gives students a thorough understanding of Precision Engagement, which is one of the six Air Force Core Competencies.

## INSTRUCTIONAL PLAN

1. **TITLE AND LENGTH OF SEMINAR:** Precision Engagement (1:00)
2. **RELATION TO OTHER INSTRUCTION:** The A1300 Phase of instruction focuses on the Air Force Core Competencies. According to AFDD 1, “Core competencies are at the heart of the Air Force’s strategic perspective and thereby at the heart of the Service’s contribution to our nation’s total military capabilities. . . whether as a single Service or in conjunction with the core competencies of other Services in joint operations” (27). Students must understand the Air Force Core Competencies is required before a study of Joint Air Operations Planning (A1600 Phase) can commence. This particular lesson gives students a thorough understanding of Precision Engagement, which is one of the six Air Force Core Competencies.
3. **GENERAL METHOD OF INSTRUCTION:**

**a. Presentation Method:** Guided discussion

**b. Time Outline:**

Segment Time	Total Time	Description
0:10	(0:10)	Introduction
0:10	(0:20)	MP I: Precision Engagement
0:25	(0:45)	MP II: Historical Examples <ol style="list-style-type: none"><li>1. 6004<sup>th</sup> Air Intelligence Services Squadron</li><li>2. Laser-Guided Bombing of the Thanh Hoa Bridge</li></ol>
0:10	(0:55)	MP III: Current and Future Application
0:05	(1:00)	Conclusion

**c. Instructor Preparation:**

- Review the lesson plan.
- Read A1360, Precision Engagement.
- Review AFDD 1, p. 30.

**d. Instructional Aids/Handouts:**

- None

**e. Student Preparation:**

- Read A1360, Precision Engagement.
- Read AFDD 1, pp. 30.

**f. Strategy:** This lesson is a guided discussion. The instructor should get the students' attention by showing what typically comes to mind when Precision Engagement is discussed. During the motivation step, let the students know that Precision engagement is more than "bombs on target" and it is important for them to understand this, both as ASBC students and Air Force officers. Begin with the knowledge-based questions about the USAF core competency of Precision Engagement. Use the historical examples to emphasize the key points in the definition of Precision Engagement and bring out how the principles of war and the air and space power functions supported Precision Engagement in those examples. Next, get the students to discuss Precision Engagement as it applies to them, both as ASBC students and as AF officers. Finally, wrap up the lesson by hitting the lesson objectives again and reminding them of the "so what." Core competencies are the basic areas of expertise that the Air Force brings to the fight. Airmen must be able to master these core competencies, if they are to employ aerospace power properly.

**g. References:** N/A

#### 4. DETAILS OF INSTRUCTION:

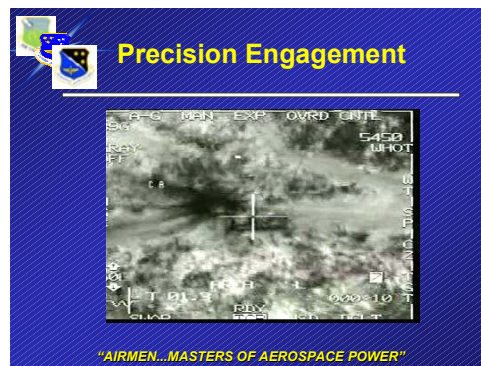
##### a. Introduction: 0:10 (0:10)



1) //Attention//

This is what most people think of when you say “Precision Engagement:”

*[SLIDE] (automatic film clip)*

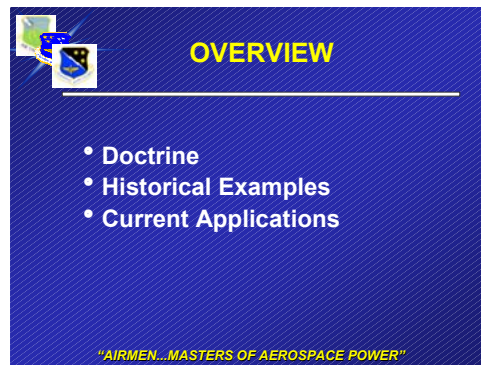


2) //Motivation//

This, however, is only part of the story. As airpower advocates it is important for us to know all of the aspects of Precision Engagement and how these apply to the application of airpower. For you, this will become very important in your AIRGAP exercise as well as Blue Thunder II.

### 3) //Overview//

**[SLIDE]**



Today we will begin our journey towards understanding precision engagement. First, we will look at Precision Engagement from a doctrinal perspective. We will look into how our doctrine defines Precision Engagement and how it is applied. We will then examine two historical examples to better understand where that doctrine came from. We will also be able to apply the definitions we have just learned to get a better idea of what Precision Engagement is. Finally, we will look at our situation today, both as an ASBC flight and as an Air Force, and examine how Precision Engagement applies.

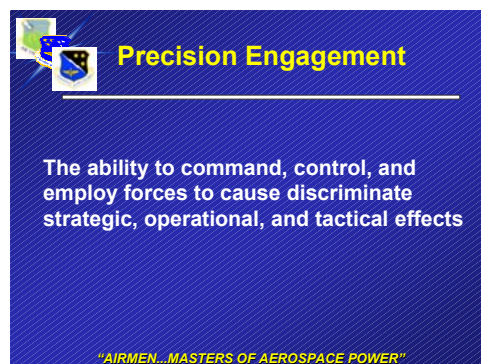
(TRANSITION): LET'S BEGIN EXAMINING PRECISION ENGAGEMENT.

#### **b. MP I: Precision Engagement: 0:10 (0:20)**

*{Instructor note: All of the quotations in MP1 are from AFDD 1.}*

**LEAD OFF QUESTION (LOQ): WHAT IS PRECISION ENGAGEMENT?**

**[SLIDE]**





**ANTICIPATED RESPONSE (AR):** Precision Engagement is “the ability to command, control and employ forces to cause discriminate strategic, operational, and tactical effects.” It is the “scalpel” that airpower provides to joint service operations, both in lethal and non-lethal forms. Precision engagement can be a Joint Direct Attack Munition (JDAM) destroying a key communications node, contributing to the effect of information superiority on the operational level, or it could be monitoring another country’s adherence to a peace agreement, contributing to the strategic effect of increased trust and national ties with the affected countries.

### **FUQ: HOW HAS PRECISION ENGAGEMENT REDEFINED THE PRINCIPLE OF WAR “MASS”?**

**AR:** Unlike past wars, where mass was defined merely by the amount of force brought to bear on the enemy, Precision Engagement requires that mass be defined by the effects put on the enemy. For example, in the early days of airpower, mass might mean hundreds of bombers with dozens of fighter escorts flying to destroy a factory complex, while today, it might mean one cruise missile destroying the power supply to the same complex. The effect is the same; the complex stops producing for a certain amount of time. Therefore, the ‘mass’ put on the target must be considered equivalent. Put another way:

*[SLIDE] (automatic film clip)*



*{Instructor note: Film clip compares B-52 with “dumb” bombs to B-2 with JDAM. This demonstrates that “mass” can no longer be measured in numbers of bombs dropped or numbers of sorties flown.}*

**FUQ: USING THE FUNCTIONS OF AIR AND SPACE POWER AS A BASIS, LIST SEVERAL EXAMPLES OF PRECISION ENGAGEMENT.**

**AR:**

*{Instructor note: Use the whiteboard. List student responses in terms of what the action is; which function is being used; and what the effect is. For example:*

*Destroying individual aircraft with laser-guided bombs (action)/ Counterair (function)/ eliminating air-to-air threat (effect)*

*Deliver the right quantities of supplies to specific refugee camp (action)/ Airlift (function)/ Save thousands of people (effect)*

*Take satellite photo of refugee camps (action)/ Reconnaissance (function)/ Photo used to prove to UN that Country X is harboring terrorists (effect)}*

(TRANSITION): NOW THAT WE'VE EXPLORED THE USAF CORE COMPETENCY OF PRECISION ENGAGEMENT, LET'S LOOK AT SOME HISTORICAL EXAMPLES THAT RELATE TO PRECISION ENGAGEMENT.

**c. MP II: Historical Examples: 0:25 (0:45)**

**6004<sup>th</sup> Air Intelligence Service Squadron (AISS):**

**LOQ: WHICH OPERATIONS CONDUCTED BY THE 6004<sup>TH</sup> HAD DISCRIMINATE TACTICAL EFFECTS?**

**AR:** The most prominent example was the attacks on the guerilla encampments outside of Taegu Airfield. Guerillas had been harassing 5<sup>th</sup> AF aircraft flying out of Taegu, so Don Nichols led a small detachment into the hills to quiet these attacks. The result was a "sharp reduction" in guerilla attacks. Other tactical level operations included sending parachutists in to rescue downed pilots or to destroy railroad bridges. Setting up "safe havens" on the islands off the coast of North Korea also gave pilots of "injured" aircraft an option for survival when bailout or crash landing usually meant capture or death.

**FUQ: WHICH OPERATIONS HAD DISCRIMINATE OPERATIONAL OR STRATEGIC EFFECTS?**

**AR:** The acquisition of enemy military hardware for technical analysis is the predominate focus of Nichols' unit in its early stages. Persuading a North Korean pilot to defect with an IL-10 ground attack aircraft led to significant intelligence gains despite having to leave the aircraft behind. Securing the T-34 tank for analysis gave tremendous aid to those who were trying to find a way to destroy the vehicle in combat. The ultimate prize, however, was the acquisition of the wreckage of two downed MiG-15s for analysis. After the designation of the 6004<sup>th</sup> Air Intelligence Services Squadron, Detachment 2 took on a myriad of tasks, all having operational or strategic implications, including "gather[ing] positive intelligence on the effectiveness of (allied) air operations."

**FUQ: WHAT COMMAND AND CONTROL ISSUES DID 5<sup>TH</sup> AF FACE WITH RESPECT TO THE 6004<sup>TH</sup>?**

**AR:** After the war began, Maj Gen Earle Partridge wanted to keep Don Nichols' unit readily available for a wide range of taskings. He created the position of "Special Representative to the Director, Special Investigations, Far East Air Forces" for just that purpose. As the roles of the unit evolved, Gen Partridge realized that more organizational support was necessary, so 5<sup>th</sup> AF redesignated the unit "Special Activities Unit Number 1," which administratively allowed that support to occur. As the unit grew and became more successful, 5<sup>th</sup> AF realized the need to keep top-level control over this vital asset. The unit was redesignated the "6004<sup>th</sup> Air Intelligence Services Squadron" to fit with the established AF intelligence organizational structure. Finally, several bureaucratic wars were fought between the AF, Army, and CIA over who should, would, or could control the 6004<sup>th</sup>. The actual operators did not see these struggles, but they had a significant impact on the types of missions the operators were tasked to do.

**[SLIDE]**



(TRANSITION): NOW THAT WE HAVE A BETTER UNDERSTANDING OF THE CONCEPT OF PRECISION ENGAGEMENT, LET'S EXAMINE HOW TECHNOLOGICAL ADVANCEMENT HAS BROUGHT PRECISION ENGAGEMENT TO THE NEXT LEVEL.

### **Thanh Hoa Bridge:**

*[SLIDE]*



**LOQ: WHAT WAS THE COMPOSITION OF THE FIRST STRIKE PACKAGE TO HIT THE THANH HOA BRIDGE AND WHAT WERE THE RESULTS?**

**AR:** The first attack consisted of 69 aircraft, 46 F-105 Thunderchiefs and the remainder support aircraft (SEAD, DCA, etc.). The Thunderchiefs carried a mix of 250 lb radio-guided "Bullpup" missiles and 750 lb conventional bombs. Most of the bombs missed and the Bullpups "bounced off" the bridge. Overall, the mission failed to damage the bridge.

**FUQ: WHAT ABOUT SUBSEQUENT MISSIONS, PRIOR TO THE USE OF LASERGUIDED BOMBS?**

**AR:** In the months following these initial attacks, similar strike packages with similar results were flown. All total, nearly 1000 sorties were flown, 11 aircraft were lost, and several pilots were either killed or captured in the attempt to destroy the bridge with conventional bombs.

**FUQ: WHAT TECHNOLOGICAL ADVANCEMENTS WERE MADE IN THE DEVELOPMENT OF THE LGBS THAT EVENTUALLY WERE USED ON THE THANH HOA BRIDGE?**

*{Instructor note: The Bullpup missile itself was the result of technological advancements made after the Korean war, but this lesson focuses on the LGB technology.}*

**AR:** The biggest advancement was the use of a laser, rather than radio waves already being used on some “precision” munitions, to guide the bomb to the target. This not only included advancement in the type of designator used to “paint” the target, but also included the corresponding seeker-and-control technology. Early use of the new LGBs along the Ho Chi Minh Trail led to further developments. Specifically, a new designator system was developed that allowed one aircraft to both drop the bomb and illuminate the target while conducting evasive maneuvers if necessary.

**FUQ: WHAT WERE THE RESULTS OF THE ATTACK ON THE THANH HOA BRIDGE, MAY 13, 1972?**

Fourteen F-4s carrying nine 3,000 lb and fifteen 2,000 lb LGBs, as well as forty-eight 500 lb conventional bombs knocked the western span of the bridge off its abutment, taking it out of use for the remainder of the war. Similar attacks on another bridge in North Vietnam, the Paul Doumer Bridge, were equally successful.

(TRANSITION): WE'VE LOOKED AT PRECISION ENGAGEMENT FROM A HISTORICAL PERSPECTIVE AND WE HAVE EXAMINED THE IMPACT OF TECHNOLOGICAL ADVANCEMENTS ON OUR ABILITY TO PERFORM PRECISION ENGAGEMENT. NOW IT IS TIME TO DISCUSS PRECISION ENGAGEMENT AS IT APPLIES TODAY AND IN THE FUTURE.

**d. MP III: Current and Future Application: 0:10 (0:55)**

**LOQ: HOW DID YOU SEE PRECISION ENGAGEMENT APPLIED IN AFEX?**

**AR:**

*{Instructor note: This should be an open discussion using ideas that came from the flight's AFEX experience. Here are some general ideas the students might*

*discuss. Attacking only one army (the effect would be victory, since bombing other armies would be a waste of resources), Attacking the AOC (the effect would be the impact on the ability of all the bases to fly missions, Attacking the tanker base (the effect would be inability of the enemy to fly deep strikes), the use of PGMs, etc.}*

## **FUQ: HOW DO YOU THINK PRECISION ENGAGEMENT WILL BE USED IN AIRGAP?**

**AR:**

*{Instructor note: Since this exercise is a future event, the discussion will probably be a little less detailed than the discussion on AFEX, but the students should be able to relate the general idea of using the air and space power functions within the parameters of the exercise to achieve discriminate effects.}*

## **FUQ: HOW DO YOU THINK YOU WILL CONTRIBUTE TO PRECISION ENGAGEMENT IN YOUR AF JOB?**

**AR:**

*{Instructor note: Generally, students should be able to relate how they contribute to the core competency of Precision Engagement within their career fields.}*

### **e. Conclusion: 0:05 (1:00)**

#### **1) //Summary//**



This lesson was your first step towards understanding the Air Force Core Competency of Precision Engagement. We began by talking about and defining the core competency of Precision Engagement. We then discussed the exploits of the 6004<sup>th</sup> Air Intelligence Services Squadron in Korea. Next, we saw how Laser-Guided Bombs in Viet Nam brought forth a new era in Precision Engagement.

Finally, we examined how Precision Engagement affects you, both as an ASBC student and an Air Force officer.

## 2) //Remotivation//

Core competencies describe what the Air Force brings to the fight. Your comprehension of Precision Engagement and the other core competencies will be essential to your success in the AIRGAP and Blue Thunder II wargames. It is also essential that you understand the core competencies for professional development as Air Force officers.

## 3) //Closure//

This quote sums up the concepts you have seen today:



“What we're seeing for the first time is the integration of long-range precision strike with ground-based or other types of very precise targeting, whether Special Forces on the ground, Predators overhead, or refined satellite capabilities” (DEPSECDEF, 7 Jan 02).